

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

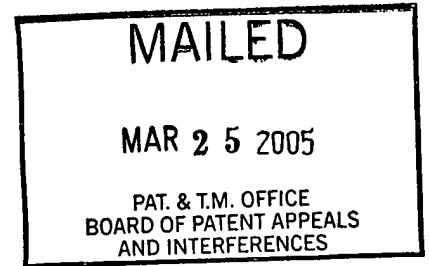
**UNITED STATES PATENT AND TRADEMARK OFFICE**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

***Ex parte*** WILHELM FRANK, GUNTER LEWENTZ and ANDREAS VOIGT

Appeal No. 2004-2237  
Application No. 09/639,962

HEARD: March 10, 2005



Before RUGGIERO, DIXON, and MACDONALD, ***Administrative Patent Judges.***

MACDONALD, ***Administrative Patent Judge.***

***DECISION ON APPEAL***

This is a decision on appeal from the final rejection of claims 1-9.

***Invention***

Appellants' invention relates to a piezoelectric assembly, comprising an elastic hollow body; a top cover plate connected to the hollow body by one of welding and flanging, and a bottom cover plate connected to the hollow body; and a piezoelectric actuator having an extension direction, the actuator inserted into the hollow body in the extension direction between the cover plates for prestressing the actuator. Appellants' specification at page 2, lines 17-25.

Claim 1 is representative of the claimed invention and is reproduced as follows:

1. A piezoelectric assembly, comprising:  
  
an electric hollow body with an elasticity;  
  
a top cover plate connected to said hollow body by one of welding and flanging, and a bottom cover plate connected to said hollow body; and  
  
a piezoelectric actuator with a permanent and fixed prestress, said piezoelectric actuator being contacted by said hollow body, said top cover plate, and said bottom cover plate.

### ***References***

The references relied on by the Examiner are as follows:

Kaji	4,354,131	Oct. 12, 1982
Takahashi	4,943,004	Jul. 24, 1990
Crawley et al. (Crawley)	4,958,100	Sep. 18, 1990
Miyoshi	5,239,223	Aug. 14, 1993
Onishi	JP 55-134990 (Kokai)	Oct. 21, 1980

### ***Rejections At Issue***

Claims 1 and 6-9 stand rejected under 35 U.S.C. § 103 as being obvious over the combination of Miyoshi and Crawley.

Claims 1, 2, and 5 stand rejected under 35 U.S.C. § 103 as being obvious over the combination of Onishi and Crawley.

Claim 4 stands rejected under 35 U.S.C. § 103 as being obvious over the combination of Miyoshi, Crawley, Takahashi, and Onishi.

Claim 3 stands rejected under 35 U.S.C. § 103 as being obvious over the combination of (Miyoshi and Crawley), or (Onishi and Crawley) in combination with Kaji.

Throughout our opinion, we make references to the Appellants' briefs, and to the Examiner's Answer for the respective details thereof.<sup>1</sup>

### **OPINION**

With full consideration being given to the subject matter on appeal, the Examiner's rejections and the arguments of the Appellants and the Examiner, for the reasons stated *infra*, we affirm the Examiner's rejection of claims 1-3 and 5 under 35 U.S.C. § 103, and we reverse the Examiner's rejection of claims 4 and 6-9 under 35 U.S.C. § 103.

Only those arguments actually made by Appellants have been considered in this decision. Arguments that Appellants could have made but chose not to make in the brief have not been considered. We deem such arguments to be waived by Appellants [see 37 CFR § 41.37(c)(1)(vii) effective September 13, 2004 replacing 37 CFR § 1.192(a)].

Appellants have indicated that for purposes of this appeal, the dependent claims stand or fall together with claim 1. See page 15 of the brief. We understand this to mean the claims stand or fall together in two groupings corresponding to the two grounds of rejection of claim 1.

Claims 1, 3-4, and 6-9 as Group I (the Miyoshi and Crawley rejection); and

Claims 1-3 and 5 as Group II (the Onishi and Crawley rejection).

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<sup>1</sup> Appellants filed an appeal brief on March 17, 2003. The Examiner mailed an Examiner's Answer on June 17, 2003.

Furthermore, Appellants argue each group of claims separately and explain why the claims of each group are believed to be separately patentable. See pages 16-20 of the brief. Appellants have fully met the requirements of 37 CFR § 1.192 (c)(7) (July 1, 2002) as amended at 62 Fed. Reg. 53169 (October 10, 1997), which was controlling at the time of Appellants' filing of the brief. 37 CFR § 1.192 (c)(7) states:

*Grouping of claims.* For each ground of rejection which appellant contests and which applies to a group of two or more claims, the Board shall select a single claim from the group and shall decide the appeal as to the ground of rejection on the basis of that claim alone unless a statement is included that the claims of the group do not stand or fall together and, in the argument under paragraph (c)(8) of this section, appellant explains why the claims of the group are believed to be separately patentable. Merely pointing out differences in what the claims cover is not an argument as to why the claims are separately patentable.

We will, thereby, consider Appellants' claims as standing or falling together in the two groups noted above, and we will treat:

Claim 1 as a representative claim of Group I; and

Claim 1 as a representative claim of Group II.

If the brief fails to meet either requirement, the Board is free to select a single claim from each group and to decide the appeal of that rejection based solely on the selected representative claim. *In re McDaniel*, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002). *See also In re Watts*, 354 F.3d 1362, 1368, 69 USPQ2d 1453, 1457 (Fed. Cir. 2004).

***I. Whether the Rejection of Claims 1, 3-4, and 6-9 Under 35 U.S.C. § 103 over Miyoshi and Crawley is proper?***

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the invention as set forth in claims 1, 3-4, and 6-9. Accordingly, we reverse.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a ***prima facie*** case of obviousness. ***In re Oetiker***, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). ***See also In re Piasecki***, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). The Examiner can satisfy this burden by showing that some objective teaching in the prior art or knowledge generally available to one of ordinary skill in the art suggests the claimed subject matter. ***In re Fine***, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellants. ***Oetiker***, 977 F.2d at 1445, 24 USPQ2d at 1444. ***See also Piasecki***, 745 F.2d at 1472, 223 USPQ at 788.

An obviousness analysis commences with a review and consideration of all the pertinent evidence and arguments. “In reviewing the [E]xaminer’s decision on appeal, the Board must necessarily weigh all of the evidence and argument.” ***Oetiker***, 977 F.2d at 1445, 24 USPQ2d at 1444. “[T]he Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the

reasoning by which the findings are deemed to support the agency's conclusion." *In re Lee*, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002).

With respect to independent claim 1, Appellants argue at page 17 of the brief, "there is no **suggestion or motivation** with **reasonable expectation of success** in the prior art for combining Miyoshi and Crawley . . . by one of welding or flanging, as recited in the claims." We find this argument persuasive.

The Examiner's rejection at the first full paragraph of page 4 of the brief contends that it would have been obvious "to connect the hollow body of Crawley by one of welding or flanging, as is taught by Miyoshi in order to prevent unintentional loosening of the fit." We disagree. As is clearly taught by Crawley at column 3, lines 14-23, the shell 4 of Crawley is "formed of a composite material, consisting of fibers." Such a material would not lend itself to either welding or flanging as claimed. We see no reasonable expectation of success from this combination of references.

Therefore, we will not sustain the Examiner's rejection under 35 U.S.C. § 103.

**II. Whether the Rejection of Claims 1-3 and 5 Under 35 U.S.C. § 103 over Onishi and Crawley is proper?**

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would have suggested to one of ordinary skill in the art the invention as set forth in claims 1-3 and 5. Accordingly, we affirm.

With respect to independent claim 1, Appellants argue at page 19 of the brief, "there is no disclosure in *Onishi* regarding the end plates 3 and 5 and how these end plates are fixed to the insulating case 6." We find this argument unpersuasive.

The Examiner notes at page 5 of the answer that a flange is “a rib or rim for strength, for guiding or for attachment to another object.” While the text of Onishi may not use the word flange in describing how the end plates are fixed, we find that Onishi’s disclosure clearly teaches step 6e. We further find that figure 2 of Onishi shows that step 6e is a flange. For these reasons, we will sustain the Examiner’s rejection under 35 U.S.C. § 103.

Appellants have presented no arguments with respect to the rejection of claim 3 under 35 U.S.C. § 103 as being obvious over the combination of Onishi and Crawley in combination with Kaji. Therefore, we will sustain the Examiner’s rejection under 35 U.S.C. § 103.

#### ***Other Issues***


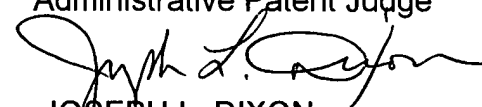
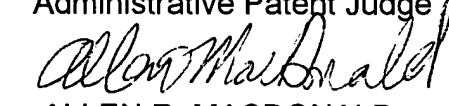
We note that claims 4 and 6-9 were not rejected using the Onishi reference. With respect to claim 4, we readily see the reason for this, as Onishi does not have apertures. However with respect to claims 6-9 the reasons are not readily apparent. For example with respect to claim 6, we fail to see why the elasticity of Onishi is not matched to a desired manner of operation. The feature of claim 6 appears to be inherent to the Onishi device. Should the Examiner choose to allow any of claims 6-9, we strongly recommend reasons for allowance for each of these claims.

**Conclusion**

In view of the foregoing discussion, we have not sustained the rejection under 35 U.S.C. § 103 of claims 4, and 6-9; and we have sustained the rejection under 35 U.S.C. § 103 of claims 1-3 and 5.

**AFFIRMED-IN-PART**

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

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JOSEPH F. RUGGIERO	)	
Administrative Patent Judge	)	
	)	
JOSEPH L. DIXON	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
ALLEN R. MACDONALD	)	
Administrative Patent Judge	)	

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